

**MARYLAND HISTORICAL TRUST
DETERMINATION OF ELIGIBILITY FORM**

NR Eligible: yes ☒
no ☐

Property Name: Bridge No. 15035 Inventory Number: M:33-26
 Address: Old Columbia Pike over Paint Branch Historic district: yes ☒ no ☐
 City: Silver Spring vicinity Zip Code: 20904 County: Montgomery
 USGS Quadrangle(s): Beltsville
 Property Owner: State Highway Administration Tax Account ID Number: n/a
 Tax Map Parcel Number(s): n/a Tax Map Number: KQ122
 Project: Old Columbia Pike over Paint Branch Agency: State Highway Administration
 Agency Prepared By: State Highway Administration
 Preparer's Name: Melissa Hess Date Prepared: 08/15/2005
 Documentation is presented in: _____
 Preparer's Eligibility Recommendation: _____ Eligibility recommended ☒ Eligibility not recommended ☐
 Criteria: A B C D Considerations: A B C D E F G
Complete if the property is a contributing or non-contributing resource to a NR district/property:
 Name of the District/Property: _____
 Inventory Number: _____ Eligible: yes Listed: yes
 Site visit by MHT Staff yes ☒ no ☐ Name: _____ Date: _____

Description of Property and Justification: *(Please attach map and photo)*

Bridge No. 15035 carries the Old Columbia Pike over Paint Branch in Montgomery County. The Old Columbia Pike runs northeast-southwest and the Paint Branch flows north-south. The bridge is located in the vicinity of Silver Springs, in the Paint Branch Stream Valley Unit #4, and is surrounded by a wooded area.

Bridge No. 15035 is a three-span concrete arch bridge with spans lengths of 59 feet and a clear roadway width of 27 feet. Currently, the bridge is closed to vehicular traffic, but it is used by pedestrians and bikers. The original structure was constructed in 1912. In 1930, the bridge was widened by 12 feet, six inches and the parapets were replaced. In 1973, the spandrel walls and arch ring were patched with mortar and the balustrade cap sections of the parapets were replaced. The superstructure consists of three arches, which support a concrete deck and concrete parapets. The concrete deck has a bituminous wearing surface and concrete curbs along the inside of both parapets. The substructure consist of concrete abutments, wing walls, and two concrete piers.

Overall, the bridge is in fair condition. There are areas on both parapets that have spalled. The top cap of the east parapet has spalled, as well as the inside face. The curb is broken in areas. The west parapet is in good condition. There are numerous spalls

MARYLAND HISTORICAL TRUST REVIEW

Eligibility recommended ☒ Eligibility not recommended ☐

Criteria: A B ☒ C D Considerations: A B C D E F G

MHT Comments: *Alterations made during historic period do not markedly compromise integrity.*

Jim Talamo
Reviewer, Office of Preservation Services

10/5/05
Date

John E. Kuntz
Reviewer, National Register Program

10/13/05
Date

200502589

on the concrete arches, pier walls, abutments, and wing walls. There is debris and vegetation along both parapets.

Bridge No. 15035 is not eligible for listing in the National Register of Historic Places (NRHP). The bridge is not associated with events that have made a significant contribution to the broad patterns of our history (Criterion A). The bridge is not associated with the lives of persons significant in our past (Criterion B). The bridge is not eligible for the NRHP under Criterion C due to a lack of historic integrity. Character-defining elements (CDEs) for a concrete arch bridge include the arch ring, barrel, spandrel walls, parapets, abutments, wing walls, and piers. The integrity of several of the CDEs of Bridge No. 15035 are diminished due to deterioration, including the arch rings, spandrel walls, abutments, wing walls, and the piers. The parapets were entirely replaced in 1930 and have since been substantially altered. Bridge No. 15035 is not likely to yield information important in prehistory or history (Criterion D).

MARYLAND HISTORICAL TRUST REVIEW

Eligibility recommended _____

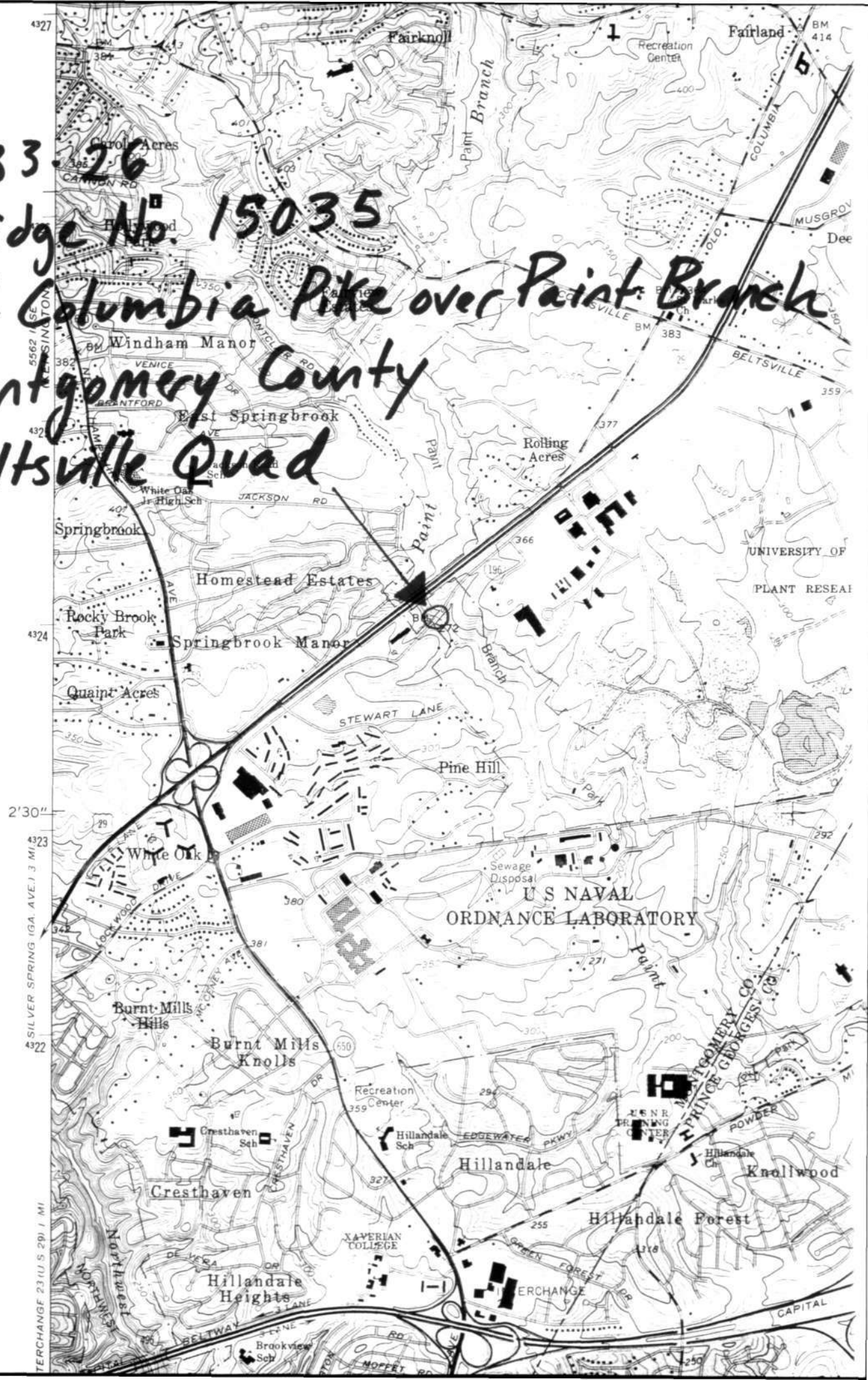
Eligibility not recommended _____

Criteria: ___ A ___ B ___ C ___ D Considerations: ___ A ___ B ___ C ___ D ___ E ___ F ___ G

MHT Comments:

Reviewer, Office of Preservation Services_____
Date_____
Reviewer, National Register Program_____
Date

Montgomery County
Beltsville Quad



MARYLAND INVENTORY OF HISTORIC BRIDGES
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

MHT No. M: 33-26

SHA Bridge No. 15035 Bridge name MD 196 over Paint Branch

LOCATION:

Street/Road name and number MD 196 (Old Columbia Pike)

City/town White Oak Vicinity X

County Montgomery

This bridge projects over: Road Railway Water X Land

Ownership: State X County Municipal Other

HISTORIC STATUS:

Is the bridge located within a designated historic district? Yes No X
National Register-listed district National Register-determined-eligible district
Locally-designated district Other

Name of district

BRIDGE TYPE:

Timber Bridge :
Beam Bridge Truss -Covered Trestle Timber-And-Concrete

Stone Arch Bridge

Metal Truss Bridge

Movable Bridge :
Swing Bascule Single Leaf Bascule Multiple Leaf
Vertical Lift Retractable Pontoon

Metal Girder :
Rolled Girder Rolled Girder Concrete Encased
Plate Girder Plate Girder Concrete Encased

Metal Suspension

Metal Arch

Metal Cantilever

Concrete X:
Concrete Arch X Concrete Slab Concrete Beam Rigid Frame

Other Type Name

DESCRIPTION:Setting: Urban ☒ Small town _____ Rural _____**Describe Setting:**

Bridge 15035 carries Old Columbia Pike over Paint Branch in Montgomery County. Old Columbia Pike runs northeast-southwest and Paint Branch flows south. The bridge is located in the vicinity of White Oak in Paint Branch Park, and is surrounded by woods and apartment buildings.

Describe Superstructure and Substructure:

Bridge 15035 is a triple-span, 2-lane, concrete arch bridge. The bridge was originally built in 1912, and was reconstructed in 1930. The structure is 188 feet long and has a clear roadway width of 27 feet; there are no sidewalks. The out-to-out width is 29 feet 10 inches. The superstructure consists of 3 concrete arches that support a concrete deck and concrete parapets. The arches each span 59 feet and are closed spandrel concrete arches. The concrete deck has a bituminous wearing surface. The structure has raised panel parapets and the roadway approaches have guardrails. The substructure consists of 2 concrete abutments and 2 concrete piers. There are 4 flared concrete wingwalls. The bridge is closed to traffic, and has a sufficiency rating of 11.

According to the 1997 inspection report, this structure was in fair condition with heavy deterioration. The asphalt wearing surface has cracks and some patching. The concrete is eroding, with scaling, spalling, and efflorescence. The arches have exposed aggregate with heavy cracking and efflorescence. The piers have heavy to severe scaling with large areas of deterioration. The abutments have heavy scaling with exposed aggregate and deterioration along the construction joint. The wingwalls have light concrete erosion and fine vertical cracks. Also, the concrete parapets have pitting, light erosion, and surface spalling.

Discuss Major Alterations:

The bridge was reconstructed to an unknown extent in 1930.

HISTORY:

WHEN was the bridge built: 1912, 1930

This date is: Actual ☒ Estimated _____

Source of date: Plaque _____ Design plans ☒ County bridge files/inspection form _____ Other (specify): _____

WHY was the bridge built? The bridge was constructed in response to the need for more efficient transportation network and increased load capacity.

WHO was the designer? State Roads Commission

WHO was the builder? State Roads Commission

WHY was the bridge altered?

The bridge was altered to ensure its structural integrity.

Was this bridge built as part of an organized bridge-building campaign?

There is no evidence that the bridge was built as part of an organized bridge building campaign.

SURVEYOR/HISTORIAN ANALYSIS:

This bridge may have National Register significance for its association with:

A - Events _____ B- Person _____

C- Engineering/architectural character _____

The bridge was determined not eligible by the Interagency Review Committee in March 1996.

Was the bridge constructed in response to significant events in Maryland or local history?

The advent of modern concrete technology fostered a renaissance of arch bridge construction in the United States. Reinforced concrete allowed the arch bridge to be constructed with much more ease than ever before and maintained

the load-bearing capabilities of the form. As the structural advantages of reinforced concrete became apparent, the heavy, filled barrel of the arch was lightened into ribs. Spandrel walls were opened, to give a lighter appearance and to decrease dead load. This enabled the concrete arch to become flatter and multi-centered, with longer spans possible. Designers were no longer limited to the semicircular or segmental arch form of the stone arch bridge. The versatility of reinforced concrete permitted development of a variety of economical bridges for use on roads crossing small streams and rivers.

Maryland's roads and bridge improvement programs mirrored economic cycles. The first road improvement of the State Roads Commission was a 7 year program, starting with the Commission's establishment in 1908 and ending in 1915. Due to World War I, the period from 1916-1920 was one of relative inactivity; only roads of first priority were built. Truck traffic resulting from war related factories and military installations generated new, heavy traffic unanticipated by the builders of the early road system. From 1920-1929, numerous highway improvements occurred in response to the increase in Maryland motor vehicles from 103,000 in 1920 to 320,000 in 1929, with emphasis on the secondary system of feeder roads that moved traffic from the primary roads built before World War I. After World War I, Maryland's bridge system also was appraised as too narrow and structurally inadequate for the increasing traffic, with plans for an expanded bridge program to be handled by the Bridge Division, set up in 1920. In 1920 under Chapter 508 of the Acts of 1920 the State issued a bond of \$3,000,000.00 for road construction; the primary purpose of these monies was to meet the state obligations involving the construction of rural post roads. The secondary purpose of these monies was to fund (with an equal sum from the counties) the building of lateral roads. The number of hard surfaced roads on the state system grew from 2000 in 1920 to 3200 in 1930. By 1930, Maryland's primary system had been inadequate to the huge freight trucks and volume of passenger cars in use, with major improvements occurring in the late 1930's. Most improvements to local roads waited until the years after World War I.

As the nation's automotive traffic increased in the early twentieth century, local road networks were consolidated, and state highway departments were formed to supervise the construction and improvement of state roads. With a diverse topographical domain encompassing numerous small and large crossings, Maryland engineers quickly recognized the need for expedient design and construction through the standardization of bridge designs.

The concept and practice of standardization was one of the most important developments in engineering of the twentieth century. In Maryland, as in the rest of the nation, the standardized concrete types became the predominant bridge types built. In the period 1911 to 1920 (the decade in which standardized plans were introduced), beams and slabs constituted 65 percent and arches 35 percent of the extant 29 bridges built in Maryland. In the following decade, 1921-1930, the beam (now the T-beam) and slab increased to 73 percent and the arch had declined to 27 percent of the 129 extant bridges; in the next decade (1931-1940), the beam and slab achieved 82 percent and arches had further declined, constituting only 18 percent of the total of extant bridges built on state-owned roads between 1931 and 1946.

Although beam and slab bridges became the utilitarian choice, it appears that the arch was selected when aesthetics as well as other site conditions were considered. The architectural treatment of extant arch bridges supports this assessment. Many of these bridges were multiple span structures with open spandrels or masonry facing. Another decorative feature of the concrete arch bridge was an open, balustrade-style parapet. Despite the popularity of ornamental arches and the increase in use of beam and slab bridges, examples of simpler, single and multiple span closed concrete arch bridges with solid parapets continued to be constructed throughout the early twentieth century.

When the bridge was built and/or given a major alteration, did it have a significant impact on the growth and development of the area?

There is no evidence that the construction of this bridge had a significant impact on the growth and development of this area.

Is the bridge located in an area that may be eligible for historic designation and would the bridge add to or detract from the historic/visual character of the potential district?

The bridge is located in an area that does not appear to be eligible for historic designation.

Is the bridge a significant example of its type?

A significant example of a concrete arch bridge should possess character-defining elements of its type, and be readily recognizable as an historic structure from the perspective of the traveler. The integrity of distinctive features visible from the roadway approach, including parapet walls or railings, is important in structures that are common examples of their type. In addition, the structure must be in excellent condition. This bridge, which has considerable deterioration, is an undistinguished example of a concrete arch bridge.

Does the bridge retain integrity of important elements described in Context Addendum?

The bridge retains much of the character-defining elements of its type; however, the integrity of these elements has been compromised by severe deterioration.

Is the bridge a significant example of the work of a manufacturer, designer, and/or engineer?

This bridge is not a significant example of the work of a manufacturer, designer, and/or engineer.

Should the bridge be given further study before an evaluation of its significance is made?

No further study of this bridge is required to evaluate its significance.

BIBLIOGRAPHY:

County inspection/bridge files _____ SHA inspection/bridge files X
Other (list):

Johnson, Arthur Newhall

1899 The Present Condition of Maryland Highways. In *Report on the Highways of Maryland*. Maryland Geological Survey, The Johns Hopkins University Press, Baltimore.

P.A.C. Spero & Company and Louis Berger & Associates

1995 Historic Highway Bridges in Maryland: 1631-1960: Historic Context Report. Maryland State Highway Administration, Maryland State Department of Transportation, Baltimore, Maryland.

Tyrrell, H. Grattan

1909 *Concrete Bridges and Culverts for Both Railroads and Highways*. The Myron C. Clark Publishing Company, Chicago and New York.

SURVEYOR:

Date bridge recorded December 1997

Name of surveyor Wallace, Montgomery & Associates / P.A.C. Spero & Company

Organization/Address P.A.C. Spero & Co., 40 W. Chesapeake Avenue, Baltimore, MD 21204

Phone number (410) 296-1635

FAX number (410) 296-1670

Maryland Historic Highway Bridges

Bridge Type CONCRETE ARCH

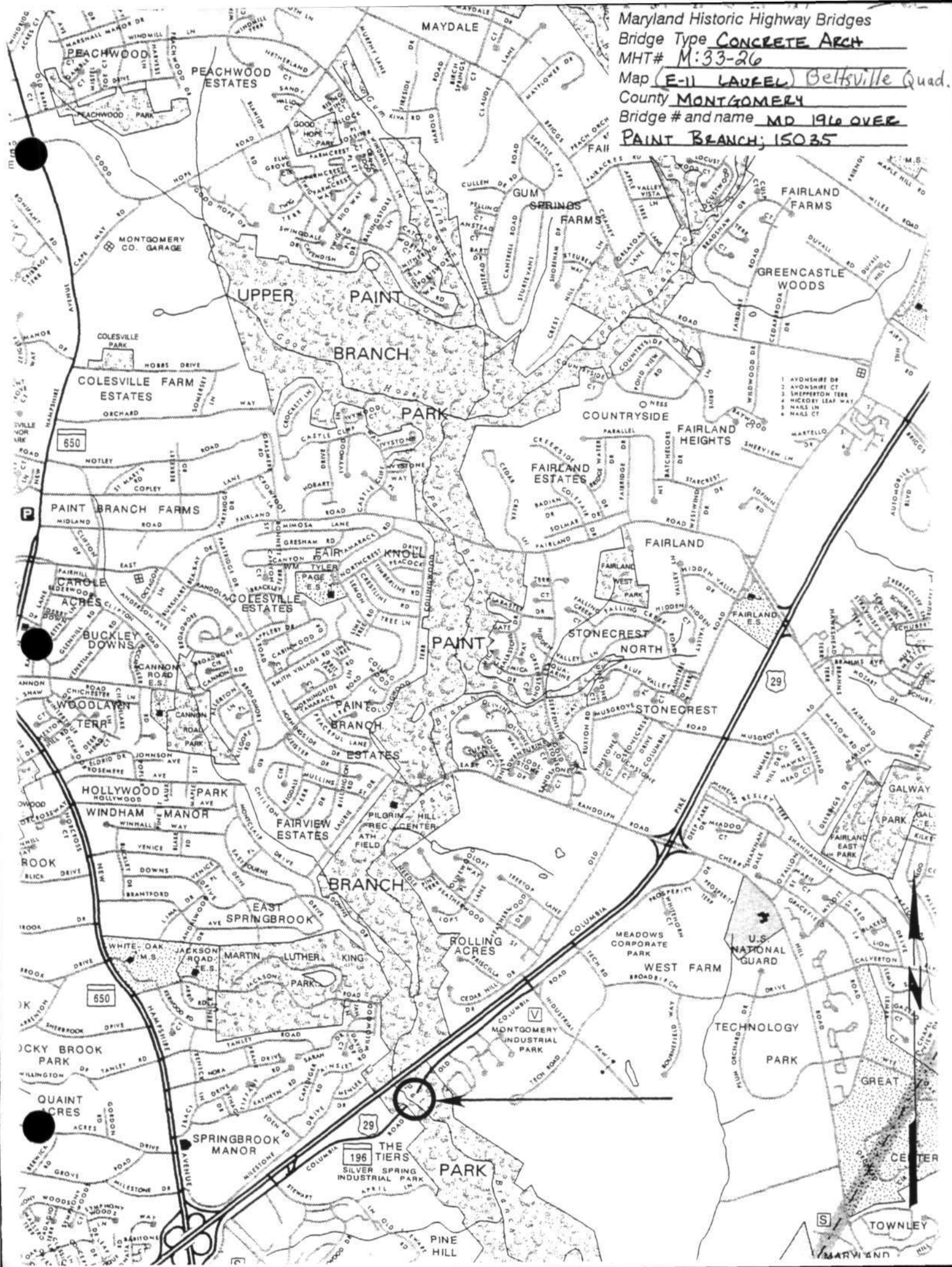
MHT# M:33-26

Map (E-11 LAUREL) Beltsville Quad.

County MONTGOMERY

Bridge # and name MD 196 OVER

PAINT BRANCH; 15035





M-33-26

Bridge 15035, Old Columbia Pike over Paint Branch
Montgomery County

M. Hess

July 2005

MD SHPO

Bridge Deck, View NE

Photo 1 of 10



M: 33-26

Bridge 15035, Old Columbia Pike over Paint Branch
Montgomery County

M. Hess

July 2005

MD SHPO

Bridge Deck, View SW

Photo 2 of 10



M: 33-26

Bridge 15035, Old Columbia Pike over Paint Branch

Montgomery County

M. Hess

July 2005

MD SHPO

Northside Parapet, View NW

Photo 3 of 10



M: 33-26

Bridge No 15035, Old Columbia Pike over Paint Branch
Montgomery County

M. Hess

July 2005

MD SHPO

North elevation

View SE

Photo 4 of 10



M: 33-26

Bridge 15035, Old Columbia Pike over Paint Branch

Montgomery County

M. Hess

July 2005

MD SHPO

North Elevation, View SE

Photo 5 of 10



M: 33-26

Bridge 15035, Old Columbia Pike over Paint Branch

Montgomery County

M Hess

July 2005

MD SHPO

North elevation, View S

Photo 6 of 10



M. 33-26

Bridge 15035, Old Columbia Pike aer Paint Branch

Montgomery County

M. Hess

July 2005

MD SHPO

North Elevation, Center Pier, View S

Photo 7 of 10



M: 33-26

Bridge 15035, Old Columbia Pike over Paint Branch

Montgomery County

M. Hess

July 2005

MD SHPO

MD SHPO

South Elevation, View NW

Photo 8 of 10



M: 33-26

Bridge 15035, Old Columbia Pike near Paint Branch
Montgomery County

M. Hess

July 2005

MD SHPO

South Elevation, View N

Photo 9 of 10



M: 33-26

Bridge 15035, Old Columbia Pike over Paint Branch
Montgomery County

M. Hess

July 2005

MD SHPO

View showing Widened Portion of Bridge, View E
Photo 10 of 10





Inventory # M:33-26

Name 5035 - COLUMBIA RD OVER PAINT BRANCH

County/State MONTGOMERY / MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description APPROACH SOUTH

Number ²4 of ~~12~~⁴

2025 RELEASE UNDER E.O. 14176



Inventory # M: 33-26

Name 15035 - COLUMBIA RD OVER PAINT BRANCH

County/State MONTGOMERY / MD

Name of Photographer FRANK JUWANO

Date 2/95

Location of Negative SHA

Description ELEVATION WEST

Number ³ 8 of ⁴ 124

1995 08480 461



Inventory # M:33-26

Name 15035-COLUMBIA RD OVER PAINTBRANCH

County/State MONTGOMERY / MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description ELEVATION EAST

Number 4 of 4